

4.6 HAZARDS AND HAZARDOUS MATERIALS

This section describes the current and past usage of hazardous materials at the proposed Central Health Service Center (CHSC) and warehouse sites and evaluates the project's potential to create a hazardous condition at the site. This section is based on the results of the *Hazardous Materials Inspection Report, State Seismic Retrofit Project, Building 22* (DGS 2002). A copy of this report is on file at the California Department of Corrections and Rehabilitation, 501 J Street, Suite 304, Sacramento, California. The boundaries of the study area for this report directly correspond to the boundaries of the proposed CHSC project site. A hazardous material review for the proposed warehouse site has not been conducted. However, a limited Phase II Site Assessment was completed by Kleinfelder in 1990. This report covered the warehouse area of the prison. The results of this report are summarized below. Hazards associated with seismic risks are covered in Section 4.5, "Earth Resources," and therefore, are not discussed further in this section.

4.6.1 EXISTING CONDITIONS

San Quentin State Prison (SQSP) is not located within one-quarter mile of an existing or proposed school, nor is the site within an airport land use plan or within 2 miles of a public or private airport. The Website database for the U.S. Environmental Protection Agency's (EPA) Envirofacts (EPA 2006a) was searched to identify potential hazardous contamination sites on or near the project site. The project site is not listed in the Envirofacts database as a known hazardous material contamination site. Further, no sites within one-quarter mile of the site have the potential to create a hazardous condition on the project site or in groundwater beneath the site (EPA 2006b). As such, these issues will not be addressed further in this DEIR.

Currently, the warehouse site is occupied by a trailer and chain-link fence. The CHSC site is occupied by Building 22. The first portion of this building to be built, the historic Dungeon, was constructed in 1854 (see Section 4.4, "Cultural Resources") with the exception of the library. Other portions of Building 22 include a library, hospital, kitchen, and dining hall. The building was vacated following a structural evaluation that determined that the building was a Seismic Risk Level VI. Building 22 is also known to contain lead-based paint (LBP) and asbestos-containing material (ACM), which are substances that create potential human health risks including anemia, nerve disorders, increased cancer risks.

HAZARDOUS MATERIALS INSPECTION REPORT

The purpose of the 2002 hazardous materials inspection report was to conduct sampling and analysis of LBP and ACM at Building 22 and to identify hazardous building materials that could create hazards during retrofit of the building as proposed under an earlier seismic retrofit project. Based on the 1995 U.S. Department of Housing and Urban Development (HUD) LBP guidelines, paint with 1.0 milligram lead per square centimeter (mg-Pb/cm²) or greater is considered LBP (DGS 2002). Paint with 0.5% or more lead by weight is considered to be LBP by HUD, EPA, and the California Department of Health Services (DHS). However, the California Occupational Safety and Health Administration (Cal/OSHA) requires an exposure assessment for certain trigger tasks at any detectable lead level and for other construction tasks disturbing lead where components contain lead at a greater than 0.06% by weight. Because Cal/OSHA regulates worker exposures "whenever lead is present," the definition of lead-containing paint was used by Harding ESE, Inc. in the hazardous materials inspection report to indicate when lead is present and when it is likely to trigger Cal/OSHA worker protection requirements. Based on X-ray fluorescence testing, lead concentrations within Building 22 ranged from "no lead detected" to 39.45% by weight (DGS 2002) indicating that LBP materials are present throughout Building 22.

A pre-demolition ACM and LBP inspection report was prepared for Building 22 in April 2007. This report also found that ACM and LBP were found extensively throughout the building. Although there were some materials that did not contain lead, it is recommended that during demolition, all painted materials be considered as containing lead. This report also found a number of building materials that contain other hazardous materials such as Polychlorinated Biphenyls (PCB's) and mercury (California Prison Health Care Receivership 2007).

All materials with detectable asbestos are subject to Cal/OSHA worker protection and notification requirements. Prior to demolition of any buildings with materials with an asbestos content greater than 1%, the Bay Area Air Quality Management District would need to be notified and the contractor removing the asbestos must be certified to remove ACM. The hazardous materials inspection report found that ACMs found in Building 22 included a plaster ceiling and vinyl asbestos tile. The report also recommended that roofing materials be tested for the presence of ACM before demolition of Building 22 (DGS 2002). Because the proposed CHSC site is currently developed and only minimal grading would be required for the project, no soil or groundwater sampling was conducted on the project site. Soil sampling for the western portion of SQSP, including the warehouse site, was conducted in 1990 by Kleinfelder, Inc. The location where the soil was sampled is a maintenance yard. It is located west of the proposed CHSC site and includes maintenance buildings; offices; storage trailers; welding, electrical, wood, and paint shops, and other storage areas. Low concentrations of metals were detected in soils in this area. The metals concentrations were below regulatory thresholds and no additional investigation was recommended (Kleinfelder 1990).

AGENCY DATABASE RECORDS

The EPA regulates solid and hazardous waste created by industrial and manufacturing processes under the federal Resource Conservation and Recovery Act (RCRA). The RCRA list identifies generators and transporters of hazardous waste. The SQSP Plant Operations Department is listed on the RCRA database as a large-quantity generator of hazardous wastes. No spills or violations have been reported (EPA 2006a). Large-quantity generators produce more than 2,200 pounds (1,000 kilograms) of hazardous waste or more than 2.2 pounds (1 kilogram) of acute hazardous waste each month. The SQSP hauls its hazardous waste off-site and disposes of the waste at an appropriately designated off-site disposal facility.

4.6.2 REGULATORY BACKGROUND

Hazardous materials handling is subject to numerous laws and regulations at all levels of government. Table 4.6-1 lists the authority of federal, state, and local regulatory agencies that oversee hazardous materials handling and management. A summary of the most pertinent regulations are provided below.

HAZARDOUS MATERIALS MANAGEMENT

Federal and state laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and to ensure that if hazardous materials are accidentally released, injury to health or the environment will be prevented or mitigated. The federal Emergency Planning and Community Right to Know Act of 1986 imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 requires preparation of hazardous materials business plans and disclosure of hazardous materials inventories. A hazardous materials business plan includes an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, the California Department of Toxic Substances Control (DTSC) has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. Local agencies, including the Environmental Health Services Division of the Marin County Community Development Agency and the SQSP Fire Station, manage laws and regulations.

**Table 4.6-1
Summary of Hazardous Materials Regulatory Authority**

Regulatory Agency	Jurisdiction	Authority
Federal		
U.S. Environmental Protection Agency	Federal	Federal Water Pollution Control Act Clean Air Act Resource Conservation & Recovery Act Federal Emergency Planning and Community Right to Know Act Comprehensive Environmental Response, Compensation & Liability Act Superfund Amendments & Reauthorization Act Federal Insecticide, Fungicide & Rodenticide Act
U.S. Department of Transportation	Federal	Hazardous Materials Transportation Act
Occupation Safety and Health Administration	Federal	Occupational Safety & Health Act
State		
Department of Toxic Substances Control	Statewide	Health and Safety Code California Code of Regulations (CCR) Titles 17, 19, & 22
Department of Industrial Relations	Statewide	California Occupational Safety & Health Act
Department of Transportation	Statewide	Hazardous materials transportation
Public Utilities Commission	Statewide	Natural gas pipelines; General Order No. 112-D
Office of Emergency Services	Statewide	Hazardous materials release/response plans Acutely Hazardous Materials Law
State Fire Marshal	Statewide	Uniform Fire Code, CCR Title 19 Hazardous liquid pipelines
Health & Welfare Agency	Statewide	Safe Drinking Water & Toxic Enforcement Act
Integrated Waste Management Board	Statewide	Environmental Protection Code CCR Title 27
State Water Resources Control Board	Statewide	Porter-Cologne Water Quality Control Act
Regional		
San Francisco Bay Regional Water Quality Control Board	Regional	NPDES permit requirements
Bay Area Air Quality Management District (BAAQMD)	Regional	California Clean Air Act, BAAQMD Regulations
Local		
Environmental Health Services Division of the Community Development Agency	County	Hazardous materials disclosure permit issuance and inspections
San Quentin State Prison Fire Station	SQSP	Emergency response
Source: Data compiled by EDAW in 2007		

WORKER SAFETY

Cal/OSHA and the federal Occupational Safety and Health Administration (OSHA) are the agencies responsible for assuring worker safety in the handling and use of chemicals in compliance with the Occupational Safety and Health Act of 1970, OSHA has adopted numerous regulations pertaining to worker safety, contained in the Code of Federal Regulations Title 29 (29 CFR). These regulations set standards for safe workplaces and work practices, including standards relating to hazardous material handling. Cal/OSHA assumes primary responsibility for developing and enforcing state workplace regulations. Because California has a federally approved OSHA program, California is required to adopt regulations that are at least as stringent as those found in 29 CFR. Cal/OSHA standards are generally more stringent than federal regulations.

Cal/OSHA's regulations for the use of hazardous materials in the workplace, as detailed in California Code of Regulations Title 8, include safety training requirements, safety equipment availability, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces regulations for hazard communication programs that contain training and information requirements, including procedures for identifying and labeling hazardous substances, procedures for communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material Safety Data Sheets be available to employees and that employee information and training programs be documented.

EMERGENCY RESPONSE TO HAZARDOUS MATERIALS INCIDENTS

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is managed by the State Office of Emergency Services, which coordinates the responses of other agencies including Cal-EPA, the California Highway Patrol (CHP), California Department of Fish and Game, San Francisco Bay Regional Water Quality Control Board, Marin County Community Development Agency, and SQSP Fire Station.

HAZARDOUS MATERIALS TRANSPORT

The U.S. Department of Transportation regulates hazardous materials transportation between states. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, these agencies determine the types of containers used and license hazardous waste haulers for transportation of hazardous waste on public roads.

HAZARDOUS WASTE MANAGEMENT

The California DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the federal RCRA and the State Hazardous Waste Control Law. Both laws impose comprehensive regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

4.6.3 ENVIRONMENTAL IMPACTS OF THE PROJECT

THRESHOLDS OF SIGNIFICANCE

The project would have a significant hazardous materials impact if it would:

- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, or
- result in safety hazards to people residing or working in the project area.

CREATE A SAFETY HAZARD TO CONSTRUCTION WORKERS

The hazardous materials inspection reports identified areas of Building 22 where concentrations of LBP and ACM were found in the building materials. LBP and ACM were found in concentrations considered hazardous by HUD, EPA, and DHS and, if people were exposed to these substances through inhalation or ingestion, could result in increased health hazards including anemia, nerve disorders, and increased cancer risks. During construction activities (e.g., demolition, grading, excavation, hauling of building materials), construction workers could come in contact with and be exposed to hazardous materials present in Building 22. Further, the presence of these contaminants in on-site buildings could create significant environment or health hazards if left in place because of the deteriorating condition of the building. Contamination is not expected to be present in on-site soil or groundwater at the CHSC or warehouse sites.

Although it is not expected that construction workers would encounter soil or groundwater contamination during construction, workers could be exposed to hazardous materials present in Building 22 during construction activities (e.g., demolition grading, excavation, hauling building materials). Exposure to these hazardous materials (i.e., LBP, ACM, PCB's, and mercury) could create a significant environmental or health hazard to construction workers including increased risks for anemia, nerve disorders, and cancer; therefore, this would be a potentially significant hazard impact (4.6-a).

CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT DURING CONSTRUCTION

During construction, minor use, storage, and handling of hazardous substances including fuel, oil, lubricants, and asphalt, would be expected. Further, operations at SQSP would require the routine handling of some hazardous materials including fuel, paints, and solvents. Construction workers and SQSP personnel would handle hazardous materials in accordance with all applicable local, state and federal regulations, including Cal/OSHA requirements for the protection of workers, and manufacturers' instructions for the safe handling of hazardous substances. These requirements include the implementation of personnel protection techniques including appropriate clothing, masks, protective shields, and respiratory devices during construction activities to prevent the inhalation, skin contact, or accidental ingestion of hazardous substances.

Because construction contractors and SQSP personnel would be required to comply with all laws pertaining to the handling, transport, and storage of hazardous materials during construction and operation of the CHSC and warehouse, and these law would provide protection to on-site workers through implementation of safe handling practices, there would be a less-than-significant impact related to hazards to the public or the environment (4.6-b).

4.6.4 PROPOSED MITIGATION MEASURES

LESS-THAN-SIGNIFICANT IMPACTS

The following impact was identified as less-than-significant, and therefore no mitigation is required.

4.6-b: Create a Significant Hazard to the Public or the Environment

SIGNIFICANT IMPACTS THAT CAN BE MITIGATED TO A LESS-THAN-SIGNIFICANT LEVEL

The following hazardous materials impact was identified as potentially significant. Mitigation is available to reduce this impact to a less-than-significant level and is recommended below.

4.6-a: Create a Safety Hazard to Construction Workers

- To avoid health risks to construction workers, the California Department of Corrections and Rehabilitation will require the contractor to prepare a site health and safety plan. This plan will outline measures that will be employed to protect construction workers and the public from exposure to hazardous materials during remediation, demolition, and construction activities. CDCR will consult with the contractor to determine the measures to be employed at the site, which could include posting notices, limiting access to the site, monitoring the air quality, watering, and installation of wind fences. Development contractors will be required to comply with state health and safety standards for all demolition work, including compliance with OSHA and Cal/OSHA requirements regarding exposure to ACM and LBP.
- In the event that contaminated soil is encountered, the California Department of Corrections and Rehabilitation will prepare a site plan that identifies necessary remediation activities appropriate for proposed land uses, including excavation and removal of on-site contaminated soils, and redistribution of clean fill material on the project site. The plan will include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site. In the event that contaminated groundwater is encountered during site excavation activities, the contractor will report the contamination to appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The development contractors will be required to comply with the plan; applicable local, state, and federal laws; and the requirements of the Central Marin Sanitary Agency for dewatering discharge. The plan will outline measures for specific handling and reporting procedures for hazardous materials, and disposal of hazardous materials removed from the site at an appropriate off-site disposal facility. Analysis and mitigation measures addressing the potential release of hazardous materials into the atmosphere are addressed in Section 4.2, “Air Quality,” of this DEIR.

Implementation of this mitigation measure would reduce this impact to a less-than-significant level.